

What is claimed is:

1. A method of displaying an image, the method comprising:
receiving image data for the image;
defining a first sub-frame of the image having a plurality of image
5 elements;
defining a second sub-frame of the image having a corresponding plurality
of image elements, with each image element of the second sub-frame spatially
offset an offset distance from a corresponding image element of the first sub-
frame;
10 displaying the first sub-frame in a first position; and
displaying the second sub-frame in a second position, with each displayed
image element of the second sub-frame spatially offset substantially the offset
distance from the corresponding displayed image element of the first sub-frame.
- 15 2. The method of claim 1, where displaying the second sub-frame
includes overlapping image elements of the second sub-frame with image
elements of the first sub-frame.
- 20 3. The method of claim 1, where the second sub-frame is offset at
least one of a vertical distance and a horizontal distance from the first sub-frame,
and where displaying the second sub-frame includes displaying the second sub-
frame the at least one of the vertical distance and the horizontal distance from the
first sub-frame.
- 25 4. The method of claim 1, where displaying the first sub-frame and
displaying the second sub-frame include modulating light with a plurality of
modulating elements corresponding to the image elements of each sub-frame.

5. The method of claim 1, further including defining a third sub-frame of the image and a fourth sub-frame of the image, the fourth sub-frame being spatially offset from the third sub-frame and the third sub-frame and the fourth sub-frame both being spatially offset from the first sub-frame and the second sub-frame; and

displaying the third sub-frame in a third position spatially offset from the first position and the second position, and displaying the fourth sub-frame in a fourth position spatially offset from the first position, the second position, and the third position.

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6. The method of claim 1, where displaying the first and second sub-frames each includes directing light onto a plurality of modulating elements, and modulating a first plurality of the modulating elements according to the first sub-frame and a second plurality of the modulating elements according to the second sub-frame.

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7. The method of claim 6, where directing light onto a plurality of modulating elements includes directing at least one of a red light, a green light, and a blue light.

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8. The method of claim 7, where directing light includes directing light of the same color onto the first and second pluralities of modulating elements.

9. The method of claim 7, where directing light includes directing light of different colors onto the first and second plurality of modulating elements.

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10. The method of claim 9, where the second sub-frame is offset from the first sub-frame in a first direction, the method further comprising defining a third sub-frame also having a corresponding plurality of image elements, with each image element of the third sub-frame spatially offset a second offset
5 distance in a second direction different than the first direction, and directing light of different colors includes directing a different one of red light, green light, and blue light onto the respective arrays.

11. The method of claim 7, further comprising defining a third sub-frame
10 also having a corresponding plurality of image elements, with each image element of the third sub-frame spatially offset from the first and second sub-frames.

12. The method of claim 6, where directing light includes directing light
15 onto a single array of modulating elements including the first and second plurality of modulating elements.

13. A system for displaying an image, the system comprising:
an image processing unit adapted to receive image data for the image and
20 to define from the image data a first sub-frame of the image having a plurality of image elements and at least a second sub-frame of the image having a corresponding plurality of image elements, each image element of the second sub-frame being spatially offset an offset distance from a corresponding image element of the first sub-frame; and
25 a display device adapted to display the first sub-frame in a first position and the second sub-frame in a second position with each displayed image element of the second sub-frame spatially offset substantially the offset distance from the corresponding displayed image element of the first sub-frame.

30 14. The system of claim 13, where the image processing unit is adapted to sub-sample the image data and decrease the resolution of the image data.

15. The system of claim 13, where the image processing unit is adapted to interpolate the image data and one of increase and decrease the resolution of the image data.

5 16. The system of claim 13, where the display device is adapted to overlap displayed image elements of the first sub-frame with displayed image elements of the second sub-frame.

10 17. The system of claim 13, where the second sub-frame is spatially offset at least one of a vertical distance and a horizontal distance from the first sub-frame, and where the display device is adapted to display the second sub-frame from display of the first sub-frame by the at least one of the vertical distance and the horizontal distance.

15 18. The system of claim 13, where the display device includes a plurality of modulating elements forming a plurality of image regions, and a light generator configured to direct a light onto each of the plurality of image regions, the display device being adapted to modulate a first image region with the first sub-frame and a second image region with the second sub-frame.

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19. The system of claim 18, where the plurality of modulating elements includes a single array of modulating elements forming the first and second image regions.

25 20. The system of claim 18, where the light includes at least one of a red light band, a green light band, and a blue light band.

21. The system of claim 20, where the light generator is configured to direct light of the same color on the first and second image regions.

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22. The system of claim 20, where the light generator is configured to direct light of different colors on the first and second image regions.

23. A system for displaying an image, the method comprising:

means for receiving image data for the image;

means for defining a first sub-frame of the image having a plurality of image elements, and at least a second sub-frame of the image having a corresponding plurality of image elements, with each image element of the second sub-frame spatially offset an offset distance from a corresponding image element of the first sub-frame; and

means for displaying the first sub-frame in a first position and the second sub-frame in a second position, with each displayed image element of the second sub-frame spatially offset substantially the offset distance from the corresponding displayed image element of the first sub-frame.

24. The system of claim 23, where the means for displaying the second sub-frame is further for displaying the second sub-frame so that image elements of the second sub-frame overlap with image elements of the first sub-frame.

25. The system of claim 23, where the means for displaying the first and second sub-frames is further for directing light onto a plurality of modulating elements, and modulating a first plurality of modulating elements according to the first sub-frame and a second plurality of the modulating elements according to the second sub-frame.

26. Storage media having embodied therein a program of commands adapted to be executed by a computer processor, to:

receive image data for an image;

define a first sub-frame of the image having a plurality of image elements;

5 define a second sub-frame of the image having a corresponding plurality of image elements, with each image element of the second sub-frame spatially offset an offset distance from a corresponding image element of the first sub-frame;

display the first sub-frame in a first position; and

10 display the second sub-frame in a second position, with each displayed image element of the second sub-frame spatially offset substantially the offset distance from the corresponding displayed image element of the first sub-frame.